

18. Discuss the various diagnostic procedures used in clinical microbiology, including microbiological, immunological and molecular methods.
 19. Explain antibiotic susceptibility testing methods, including disc diffusion, E-test, and dilution methods, along with quality control practices.
 20. Discuss in detail the causes, prevention, and control measures for hospital-acquired infections, including the role of HICC.
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APRIL/MAY 2025

**23PEMB23B — CLINICAL DIAGNOSTIC
MICROBIOLOGY**

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What are general safety guidelines in a microbiology laboratory?
2. Define biomedical waste management.
3. What is specimen rejection criteria in clinical microbiology?
4. List any two methods of specimen transport.
5. What is differential diagnosis?
6. Mention two molecular diagnostic methods in clinical microbiology.
7. What is the principle of the Kirby Rauer method?



8. Define MIC.
9. What is a nosocomial infection?
10. Name any two methods to prevent hospital-acquired infections.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Describe the handling of biological hazards in clinical microbiology laboratories.

Or

- (b) Explain the management of emerging and re-emerging infections.

12. (a) Discuss specimen collection and transport procedures in clinical diagnostic microbiology.

Or

- (b) Write a short note on specimen acceptance and rejection criteria.



13. (a) Explain the role of immunological methods in microbial disease diagnosis.

Or

- (b) Describe the automation techniques used in modern microbial diagnosis.

14. (a) Explain agar dilution and broth dilution methods for antibiotic susceptibility testing.

Or

- (b) Discuss quality control methods for antibiotics and standard strains.

15. (a) Describe the common types and sources of nosocomial infections.

Or

- (b) Explain the role of the Hospital Infection Control Committee (HICC).

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Describe in detail the general safety practices and biomedical waste disposal methods in a clinical microbiology lab.

17. Write an essay on specimen collection, transport, processing, and the criteria for specimen acceptance and rejection in clinical laboratories.